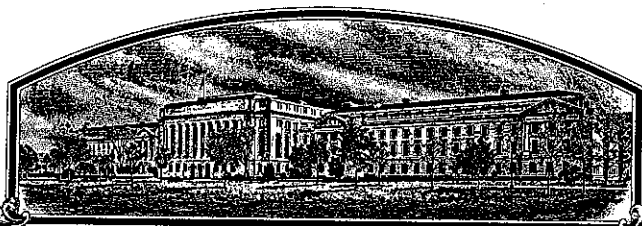


No.

9500093



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS, SHALL COME:

Western Plant Breeders, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT

'Fergus'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this thirty-first day of August in the year of our Lord one thousand nine hundred and ninety-five.

Attest:

ARSARQ

Acting Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Samuel J. Hittman

Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(INSTRUCTIONS ON REVERSE)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate) Western Plant Breeders, Inc.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO. TR 983-239		3. VARIETY NAME Fergus	
4. ADDRESS (street and no. or R.F.D. no., city, state, and ZIP) 8111 Timberline Drive Bozeman, Montana 59715		5. PHONE (include area code) (406) 587-1218		FOR OFFICIAL USE ONLY PVPO NUMBER 9500093	
6. GENUS AND SPECIES NAME Triticum aestivum		7. FAMILY NAME (Botanical) Gramineae		Filing and Examination Fee: \$ 2,325.00 Date Feb. 28, 1995	
8. CROP KIND NAME (Common Name) Common Wheat (hard red spring wheat)		9. DATE OF DETERMINATION Aug. 1, 1989		Certificate Fee: \$ 275.00 + 25.00 Date 06/20/95 07/03/95	
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation.				Filing and Examination Fee: \$ 2,325.00 Date Feb. 28, 1995	
11. IF INCORPORATED, GIVE STATE OF INCORPORATION Arizona		12. DATE OF INCORPORATION Aug. 24, 1990		Certificate Fee: \$ 275.00 + 25.00 Date 06/20/95 07/03/95	

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

Dr. Dale R. Clark
Western Plant Breeders, Inc.
8111 Timberline Drive
Bozeman, MT 59715

(406) 587-1218

PHONE (include area code):

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow INSTRUCTIONS on reverse)		15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See section 83(a) of the Plant Variety Protection Act)	
<input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety <input checked="" type="checkbox"/> Exhibit B, Novelty Statement <input checked="" type="checkbox"/> Exhibit C, Objective Description of Variety <input checked="" type="checkbox"/> Exhibit D, Additional Description of Variety <input checked="" type="checkbox"/> Exhibit E, Statement of the Basis of Applicant's Ownership <input checked="" type="checkbox"/> Good Sample (2,500 viable untreated seeds). Date Good Sample mailed to Plant Variety Protection Office Feb. 27, 1995 <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,325) made payable to "Treasurer of the United States"		<input type="checkbox"/> YES (If "YES," answer items 16 and 17 below) <input checked="" type="checkbox"/> NO (If "NO," skip to item 18 below)	
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input type="checkbox"/> NO		17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED	
18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.? <input type="checkbox"/> YES (If "YES," through <input type="checkbox"/> Plant Variety Protection Act <input type="checkbox"/> Patent Act. Give date: _____) <input checked="" type="checkbox"/> NO			
19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES (If "YES," GIVE NAMES OF COUNTRIES AND DATES) April 1, 1994 <input type="checkbox"/> NO			

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT (Owner(s)) Dale R. Clark for Western Plant Breeders Inc.	CAPACITY OR TITLE Barley and Wheat Breeder	DATE Feb. 24, 1995
SIGNATURE OF APPLICANT (Owner(s))	CAPACITY OR TITLE	DATE

FERGUS

14 a. Origin and Breeding History

Fergus is a hard red spring wheat selected by Western Plant Breeders (WPB) from a male-sterile facilitated, recurrent selection population (MSFRSP) designated "UHRSP-81". This population was developed by top crossing wheat varieties adapted to the Pacific Northwest onto male-sterile F2 plants in various MSFRS populations that were developed by WPB. Several F3 plants were selected from this population in 1982 out of a WPB nursery near Tremonton, Utah. Seed from each of the F3 plants was planted in short plots near Tremonton in 1983. Agronomically acceptable plots were selected at harvest in August of 1983. One such plot was given the experimental number TR 983-239. The resultant F5 seed was used for yield testing in Washington, Idaho, and Montana in 1984. Successive generations were tested in 1985 through 1993.

Spikes were selected near Bozeman, MT in September, 1989 and were planted in November, 1989 as head plots near Phoenix, AZ. Ten individual plants were pulled from each of six uniform plots in May, 1990, and seed of each was planted near Bozeman the same month. Uniform plant plots were individually harvested and seed from each was checked for grain quality. Uniform plots were bulked to form pre-breeders seed. This seed was used to plant a small strip near Bozeman in May, 1991. This was harvested in September, 1991 and designated Breeders seed. Most of this seed was used for demonstration strips in 1992. The remainder of the Breeders seed was planted near Denton, MT in the spring of 1993 to produce Foundation seed. The production from this field was harvested in September, 1993 and designated "Fergus". Certified seed was first be available to growers April 1, 1994.

Fergus is a stable and uniform variety in agronomic appearance and performance across several generations and growing conditions. Agronomic data to support this stability are presented in Tables 1 through 6.

F E R G U S

14 b. Novelty Statement

Fergus is most similar to the variety WestBred 906-R. However, Fergus is red chaffed and WestBred 906-R is white chaffed.

The above comparison, along with the complete objective description (14 c.), shows Fergus to be a novel variety of hard red spring wheat.

14 c. Objective Description (see pages 4 and 5)**14 d. Additional Description**

Fergus is a hollow stem, semi-dwarf, red chaffed, hard red spring wheat. The leaves and stems of Fergus have a waxy bloom and the leaf auricles are purple with pubescent hairs. The spikes are lax, oblong and awned, and the awns are red at maturity. The glumes are red, long and wide, with narrow, square shoulders. The beak is narrow, medium short, and the apex is acuminate. Seed of Fergus is mid-long, mid-wide, and elliptical with rounded cheeks. The crease is mid-wide and shallow and the germ is medium in size. The brush is medium in length, and long but not collared. Fergus is 1 to 3 inches taller, and 1 to 2 days later heading than either WestBred 906-R or WestBred 926. Grain yields of Fergus have been similar to WestBred 906-R and WestBred 926 with grain quality remaining equal. In contrast to both W.B. 906-R and W.B. 926, Fergus appears to be tolerant to the wild oat herbicide "Avenge" (difenzoquat) in field tests. Fergus is also more resistant to shatter than either WestBred 906-R or WestBred 926, but is susceptible to the prevalent races of Hessian fly in Washington and Idaho where WestBred 906-R and WestBred 926 are resistant.

FERGUS

EXHIBIT A: MAH 20 JUNE 1995 per letter

Variants:

A tall variant (one to two head lengths taller than the norm) occurs in Fergus at the frequency of 3 per 10,000 plants.

Also, a white seed variant occurs at a frequency of up to 5 per 10,000 seeds.

Western Plant Breeders is attempting to remove these variants through further head-rowing and purification. However, this may not be possible due to inherent genetic imbalances.

14 e. Statement of Ownership

'Fergus', the variety for which Plant Variety Protection is hereby sought, was developed by Dr. Dale R. Clark, an employee of Western Plant Breeders, Inc.. All rights to any invention, discovery, or development made by the employee while employed by Western Plant Breeders, Inc. were assigned by Western Plant Breeders, Inc. with no rights of any kind pertaining to 'Fergus' are retained by the employees.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK AND SEED DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY

WHEAT (TRITICUM SPP.)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

Western Plant Breeders, Inc.

FOR OFFICIAL USE ONLY

PVPO NUMBER

9500093

VARIETY NAME OR TEMPORARY DESIGNATION

Fergus

Place the appropriate number that describes the varietal character of this variety in the boxes below.

Place a zero in first box (e.g., 0 8 9 or 0 9) when number is either 99 or less or 9 or less.

1. KIND:

1 1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

2. TYPE:

1 1 = SPRING 2 = WINTER 3 = OTHER (Specify) 2 1 = SOFT 3 = OTHER (Specify)
2 2 = HARD

2 1 = WHITE 2 = RED 3 = OTHER (Specify)

3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:

0 6 5 FIRST FLOWERING 0 6 9 LAST FLOWERING

4. MATURITY (50% Flowering):

0 6 NO. OF DAYS EARLIER THAN 7 1 = ARTHUR 2 = SCOUT 3 = CHRIS

0 1 NO. OF DAYS LATER THAN 8 4 = LEMHI 5 = NUGAINES 6 = LEEDS
7 = WestBred Express, 8 = WestBred 906-R

5. PLANT HEIGHT (From soil level to top of head):

0 9 1 CM. HIGH

0 7 CM. TALLER THAN

1 7 CM. SHORTER THAN

7 = WestBred Expressd
8 = Fortuna

1 = ARTHUR 2 = SCOUT 3 = CHRIS
4 = LEMHI 5 = NUGAINES 6 = LEEDS

6. PLANT COLOR AT BOOTING (See reverse):

3 1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN

7. ANTHUR COLOR:

1 1 = YELLOW 2 = PURPLE

8. STEM:

1 Anthocyanin: 1 = ABSENT 2 = PRESENT

2 Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT

0 4 NO. OF NODES (Originating from node above ground)

2 Waxy bloom: 1 = ABSENT 2 = PRESENT

1 Internodes: 1 = HOLLOW 2 = SOLID

2 4 CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

9. AURICLES:

2 Anthocyanin: 1 = ABSENT 2 = PRESENT

2 Hairiness: 1 = ABSENT 2 = PRESENT

10. LEAF:

2 Flag leaf at booting stage: 1 = ERECT 2 = RECURVED
3 = OTHER (Specify):

2 Flag leaf: 1 = NOT TWISTED 2 = TWISTED

2 Hairs of first leaf sheath: 1 = ABSENT 2 = PRESENT

2 Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT

1 6 MM. LEAF WIDTH (First leaf below flag leaf)

2 6 CM. LEAF LENGTH (First leaf below flag leaf)

11. HEAD:

☐ 1 Density: 1 = LAX 2 = DENSE ☐ 2 Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE
4 = OTHER (Specify) _____

☐ 4 Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNEO

☐ 4 Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED
5 = BROWN 6 = BLACK 7 = OTHER (Specify): _____

☐ 1 ☐ 2 CM. LENGTH

☐ 1 ☐ 6 MM. WIDTH

12. GLUMES AT MATURITY:

☐ 3 Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.)
3 = LONG (CA. 9 mm.)

☐ 3 Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.)
3 = WIDE (CA. 4 mm.)

☐ 4 Shoulder 1 = WANTING 2 = OBLIQUE 3 = ROUNDED
shape: 4 = SQUARE 5 = ELEVATED 6 = APICULATE

☐ 3 Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

13. COLEOPTILE COLOR:

☐ 1 1 = WHITE 2 = RED 3 = PURPLE

14. SEEDLING ANTHOCYANIN:

☐ 1 1 = ABSENT 2 = PRESENT

15. JUVENILE PLANT GROWTH HABIT:

☐ 3 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

16. SEED:

☐ 3 Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL

☐ 1 Check: 1 = ROUNDED 2 = ANGULAR

☐ 2 Brush: 1 = SHORT 2 = MEDIUM 3 = LONG

☐ 1 Brush: 1 = NOT COLLARED 2 = COLLARED

☐ Phenol reaction 1 = IVORY 2 = FAWN 3 = LT. BROWN
(See instructions): 4 = BROWN 5 = BLACK

☐ 3 Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) _____

☐ 0 ☐ 7 MM. LENGTH ☐ 0 ☐ 4 MM. WIDTH

☐ 4 ☐ 8 GM. PER 1000 SEEDS

17. SEED CREASE:

☐ 2 Width: 1 = 60% OR LESS OF KERNEL 'WINOKA'
2 = 80% OR LESS OF KERNEL 'CHRIS'
3 = NEARLY AS WIDE AS KERNEL 'LEMHI'

☐ 2 Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT'
2 = 35% OR LESS OF KERNEL 'CHRIS'
3 = 50% OR LESS OF KERNEL 'LEMHI'

18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ 1 STEM RUST (Races) Prevalent

☐ 2 LEAF RUST (Races) Prevalent

☐ 2 STRIPE RUST (Races) Prevalent ☐ 0 LOOSE SMUT

☐ 2 POWDERY MILDEW

☐ 0 BUNT

☐ OTHER (Specify) _____

19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ 1 SAWFLY

☐ 0 APHID (Bydv.)

☐ 0 GREEN BUG

☐ 0 CEREAL LEAF BEETLE

☐ 1 OTHER (Specify) Hessian fly
prevalent races in the
Pacific Northwest

HESSIAN FLY
RACES:

☐ GP ☐ A ☐ B ☐ C
☐ D ☐ E ☐ F ☐ G

20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	WestBred 906-R	Seed size	WestBred 906-R
Leaf size	WestBred 906-R	Seed shape	WestBred 906-R
Leaf color	WestBred 906-R	Coleoptile elongation	WestBred 906-R
Leaf carriage	WestBred 906-R	Seedling pigmentation	WestBred 906-R

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

(a) L.W. Briggie and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.

(b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.

FERGUS

Table 1. Yield in lbs/ac of Fergus and various checks in WPB's trials.

	<u>Fergus</u>	<u>WestBred 906-R</u>	<u>Express</u>
'91			
Bozeman, MT	7922	7759	6391
Blackfoot, ID	7236	6417	6502
Burley, ID	6649	6467	6613
Moses Lake, WA	<u>6811</u>	<u>6107</u>	<u>6864</u>
mean	7155	6688	6593
'92			
Bozeman, MT	5844	5496	5902
Burley, ID	6363	5750	6104
Moses Lake, WA	<u>6382</u>	<u>5631</u>	<u>6137</u>
mean	6196	5626	6048
'93			
Bozeman, MT	6990	6922	6811
Blackfoot, ID	8078	6477	7920
Burley, ID	5085	5626	5715
Moses Lake, WA	<u>7230</u>	<u>7374</u>	<u>7490</u>
mean	6846	6600	6984
Grand mean	6781	6366	6586

FERGUS

Table 2. Plant height (inches) of Fergus and various checks in WPB's trials.

	<u>Fergus</u>	<u>WestBred 906-R</u>	<u>Express</u>
'91			
Bozeman, MT	39	39	37
Blackfoot, ID	36	35	31
Burley, ID	33	32	30
Moses Lake, WA	<u>42</u>	<u>40</u>	<u>37</u>
mean	38	37	34
'92			
Bozeman, MT	33	31	28
Burley, ID	30	28	28
Moses Lake, WA	<u>34</u>	<u>31</u>	<u>32</u>
mean	32	30	29
'93			
Bozeman, MT	42	40	38
Blackfoot, ID	39	37	36
Burley, ID	35	33	31
Moses Lake, WA	<u>36</u>	<u>36</u>	<u>32</u>
mean	38	37	34
Grand mean	36	35	33

FERGUS

Table 3. Test Weight (lbs/bu) and protein % of Fergus and various checks in WPB's trials.

	Fergus		WestBred 906-R		Express	
	<u>T.W.</u>	<u>Protein</u>	<u>T.W.</u>	<u>Protein</u>	<u>T.W.</u>	<u>Protein</u>
'91						
Bozeman, MT	60	14.3	58	13.9	60	14.8
Blackfoot, ID	61	14.2	60	14.2	60	14.3
Burley, ID	62	13.9	61	14.3	62	13.1
Moses Lake, WA	<u>61</u>	<u>14.7</u>	<u>60</u>	<u>14.9</u>	<u>60</u>	<u>14.9</u>
mean	61	14.3	60	14.3	61	14.3
'92						
Bozeman, MT	59	14.1	58	14.3	57	14.5
Burley, ID	62	14.3	60	14.8	62	14.4
Moses Lake, WA	<u>57</u>	<u>14.0</u>	<u>55</u>	<u>14.2</u>	<u>55</u>	<u>14.6</u>
mean	59	14.1	58	14.4	58	14.5
'93						
Bozeman, MT	56	12.8	53	13.5	55	12.9
Blackfoot, ID	62	12.0	59	12.1	62	11.5
Burley, ID	63	10.0	62	9.7	63	10.2
Moses Lake, WA	<u>59</u>	<u>14.7</u>	<u>60</u>	<u>14.5</u>	<u>60</u>	<u>14.8</u>
mean	60	12.4	59	12.5	60	12.4
Grand mean	60	13.5	59	13.7	60	13.6

FERGUS

Table 4. Heading dates (from Jan. 1) at Bozeman, MT of Fergus and various checks in WPB' trials.

	<u>Fergus</u>	WestBred <u>906-R</u>	<u>Express</u>
1990	184	183	190
1991	194	192	200
1992	175	175	179
1993	<u>194</u> 187	<u>192</u> 186	<u>202</u> 193

FERGUS

Table 5. Agronomic comparisons of Fergus and check varieties in Montana State Univ. trials from 1992 - 1994.
(25 location summary)

Variety	Heading Date from 1/1			Plt. Ht. (inches)			T.W. (lbs/bu)			Protein %			Yield (bu/ac)		
	92	93	94	92	93	94	92	93	94	92	93	94	92	93	94
Fergus	165	175	167	32	32	30	61	58	59	13.1	13.8	14.9	78	65	65
WB 936	166	172	166	29	30	28	60	56	58	14.0	13.8	15.3	84	64	59
WB 926	165	172	166	30	30	30	60	57	58	13.6	14.4	15.1	76	67	58
WB Express		178	168	29	29	27	59	57	59	58	13.9	14.6	70	60	65
Newana	171	180	173	32	33	30	60	57	59	12.6	12.5	13.6	85	64	59
Lew	171	180	173	39	39	37	61	60	60	13.7	14.4	15.0	73	61	53
Fortuna	169	177	169	38	38	37	61	58	60	13.9	14.0	14.8	70	54	55
Pondera	168	176	168	33	33	31	61	59	59	13.3	13.7	14.9	82	67	56
Len	169	178	170	33	34	31	60	57	59	14.0	14.7	15.0	73	59	57
Glenman	170	178	171	33	34	31	59	57	58	12.8	13.1	14.0	83	62	67
Hi-Line	166	175	167	30	31	29	61	58	59	13.3	13.7	15.0	82	61	57
McNeal	170	177	171	34	35	32	60	57	58	13.6	13.4	15.0	85	68	59
Stoa	169	177	169	38	38	37	60	58	59	13.5	14.8	14.9	86	67	56
Amidon	169	177	170	38	38	36	60	58	59	13.2	14.2	14.6	83	71	57
Rambo	169	179	171	32	33	29	60	58	59	12.4	13.1	14.2	79	66	59
Border	164	174	166	32	33	31	61	58	59	13.8	13.9	15.0	73	60	52

FERGUS

Table 6. Milling and baking quality data summary of Fergus compared to check varieties in Montana State University's Intrastate Wheat Yield Trials in 1992 and 1993.

	Flour		Farinograph			Baking Data			
	YLD %	ASH %	ABS %	PEAK	STAB	MTI	ABS %	MIX	LF VL G & T
<u>1992 (7 location avg)</u>									
Fergus	70.6	0.475	67.1	5.6	6.3	22	67.1	2.3	949 5.4
WestBred 936	71.6	0.460	66.3	9.1	10.0	14	66.7	2.8	1004 6.2
WestBred 926	70.3	0.453	65.6	9.7	12.5	11	66.4	2.9	1019 6.1
Newana	68.3	0.424	64.7	5.6	6.3	26	66.6	2.3	955 5.3
Hi-Line	69.1	0.446	67.8	7.3	9.3	165	68.4	3.5	1003 5.9
McNeal	69.5	0.461	69.3	10.9	11.4	99	69.7	3.4	1008 5.7
<u>1993 (7 location avg)</u>									
Fergus	69.8	0.473	65.3	6.4	8.8	19	66.7	3.4	937 5.8
WestBred 936	68.3	0.429	63.2	10.9	11.9	20	65.2	4.0	935 6.1
WestBred 926	69.9	0.476	63.9	10.9	11.1	20	65.4	3.3	931 5.9
Newana	67.6	0.445	63.4	5.8	7.4	25	65.6	3.0	891 5.9
Hi-Line	66.7	0.438	65.3	5.9	10.7	15	67.5	4.9	941 6.1
McNeal	68.6	0.458	66.3	7.2	12.0	8	67.8	4.6	872 5.6